Texting May Help Reduce Disparities in Colorectal Cancer Screening

Text messaging and mailing people free, at-home test kits can help boost the number of people who get screened for colorectal cancer.

March 26, 2021 By National Cancer Institute

Text messaging isn't just for finding fun ways to use new emojis and having disjointed digital conversations with friends. According to results from a new study, combining text messaging with mailing people free, at-home test kits can help boost the number of people who get screened for colorectal cancer.

The findings come from a clinical trial of more than 400 people who had been patients at a community health center in southwest Philadelphia. Approximately 90% of the people involved in the study were Black, in whom screening rates have traditionally been low.

Among those in the study who received a single text message reminding them that they were overdue for colorectal cancer screening, only about 2% got screened in the next 12 weeks. But among those who were sent a series of text messages about getting screened and were mailed a fecal immunochemical test (FIT) to use at home, approximately 20% completed the test and returned it by mail over the same time period—a nearly 10-fold increase in screening completion.

The results were published January 28 in the Journal of General Internal Medicine.

The number of people who completed the screening is still relatively low, acknowledged one of the trial's lead investigators, Shivan Mehta, MD, of the Perelman School of Medicine at the University of Pennsylvania. But the study's results are promising nonetheless, Mehta said.

"The patient population for this study is a historically underserved population: 50% are on Medicaid and many are uninsured. For a variety of reasons, they're not getting screened for colorectal cancer," he said.

Paul Doria-Rose, PhD, of the Healthcare Delivery Research Program in NCI's Division of Cancer Control and Population Sciences, agreed the study shows that text messaging has a role in addressing screening disparities. It also highlights several advantages of text messaging, he said.

"Texts are much more likely to be opened than emails and are cheap and easy for health systems to implement," Doria-Rose continued. A challenge will be how best to use text message–based

outreach as a tool to address health-related disparities, whether it's reminders about vaccinations or other preventive care.

Inundating patients with text messages, Doria-Rose warned, could "cause them to disengage from further interaction with the health care system."

Finding Ways to Bridge Cancer Screening Disparities

Over the past decade, the overall rate of screening for colorectal cancer in the United States has slowly increased. Compared with non-Hispanic Whites, screening rates have improved but still lag among Blacks and have remained low among Hispanics/Latinos.

Although multiple factors contribute to this screening shortfall, having health insurance "is the dominant factor for being up to date on colorectal cancer screening," said Samir Gupta, MD, of the University of California San Diego (UCSD), a gastroenterologist whose research focuses on screening and prevention.

Despite the importance of health insurance, Gupta stressed that it's important not to ignore the other social and economic factors behind this and other cancer-related disparities. For example, the specter of historical mistreatment in research involving people from racial/ethnic minority groups is still strong in those communities.

"We know from other research that [these populations] have concerns about cancer screening—trust issues," Mehta said.

In addition, colonoscopy isn't always a practical option for many in underserved communities, who often don't have paid medical leave from work or easy access to facilities that offer the procedure.

All of these factors have prompted researchers to test whether proactive outreach, together with free, at-home tests like FIT, can help improve colorectal cancer screening among underserved populations. Among the different forms of direct outreach, text messaging is an area of intense interest—and for good reason.

"We have found [that texting] is the form of communication that many of our patients want, particularly our minority and underserved patients," Dr. Mehta said.

More Colorectal Cancer Screening for Little Cost

All 440 participants in the trial had previously been seen at the same Federally Qualified Health Center (FQHC) in Philadelphia. FQHCs are health centers that receive federal funds to provide primary care services in underserved communities. To be part of the trial, participants had to be overdue for colorectal cancer screening and their cell phone number had to be in their electronic health record.

Half of participants were randomly selected to receive a single text message about overdue screening—the usual practice at the FQHC where the trial was conducted. The other half of participants (the "intervention" group) received a series of text messages, beginning with one that

came from their actual care provider at the center and indicating that they would be receiving the free FIT kit. The recipients could then reply if they did not want to receive the free test.

People in this group who did not send an “opt-out” reply received additional text messages to confirm that the FIT kit had been received and to follow up at regular intervals if the test had not been mailed back (a postage-marked return envelope was included with the testing kit).

Twelve weeks after receiving the initial text message, 5 participants (2.3%) in the usual-care group had undergone screening (FIT or colonoscopy), whereas 43 participants (19.8%) in the intervention group had completed and returned the FIT test.

A notable finding from the trial, the researchers reported, was the low cost of the text messaging/FIT kit mailing: $200 for all participants.

Although FIT and a similar at-home colorectal cancer screening test, FOBT, have advantages, they also have notable drawbacks, Dr. Doria-Rose said. That includes that they are recommended to be performed every year (whereas colonoscopy only needs to be performed once every 10 years).

That creates a potential problem, he continued, because some studies have shown that “a significant proportion of individuals screened by FIT are either screened inconsistently or fall into a ‘one-and-done’ category.”

Another challenge with at-home tests, he said, is ensuring that people who have an abnormal result on these tests get the appropriate follow-up—which, in the case of FIT, is a colonoscopy.

Tailoring Outreach to the Target Population

Other studies have also tested mailing free FIT kits and direct patient outreach to help improve cancer screening in underserved populations.

For example, Gupta and Sheila Castañeda, PhD, of San Diego State University, led a clinical trial testing ways of increasing screening rates among a primarily Hispanic/Latino population along the United States border with Mexico. Similar to the Philadelphia trial, all participants were patients at the same FQHC.

Rather than text messaging, this study used postcard primers, mailed FIT kits with easy-to-understand instructions, and live follow-up phone calls to participants. In the trial, nearly 80% of people who received the postcards and FIT kits completed screening. All study participants had an upcoming clinic visit already scheduled, Castañeda noted, so they were likely a more “engaged” group.

Nevertheless, the trial highlights the importance of using communication strategies developed through academic–community research partnerships to inform the messaging and overall approach for underserved populations, she continued.

Based on their own patient-based studies, “we tailored the materials accordingly with messages

like, ‘Do it for your family,’” she said. “And we had culturally competent bilingual staff doing the reminder calls and subsequent patient navigation” for participants.

More broadly speaking, Castañeda stressed that making greater progress in addressing cancer-related disparities will require scaling up strategies that work, implementing them “at a broader, system level.”

For example, as part of a Cancer Moonshot℠ initiative called ACCSIS, Castañeda and Gupta are involved in a screening study being conducted at a large group of community health centers in California that will test an outreach approach similar to the one used in their single-center study.

Broader use of effective outreach strategies will also require parallel changes at the policy level, Gupta said. That includes payment models that can support the practices that are shown to help reduce cancer-related disparities.

“The evidence is there,” he said. “Is the policy then there to do it?”

This post was originally published by the National Cancer Institute. It is republished with permission.
